

CLAIMS

What is claimed is:

- 1 1. A method of operating a server machine to expand input strings of characters
2 received from client machines that include character input devices:
3 storing, in a location accessible to said server machine, one or more mappings
4 between abbreviated substrings and expanded substrings;
5 receiving, at the server machine, an unexpanded input string of characters from a
6 client machine that includes a character input device, the unexpanded input
7 string including at least one abbreviated substring, each preceded and
8 followed in the unexpanded input string by word delimiters; each abbreviated
9 substring belonging to a set of abbreviated substrings in an applicable
10 mapping of said one or more mappings; and
11 automatically finding one of the abbreviated substrings based on the preceding and
12 following word delimiters;
13 determining, based on said applicable mapping, that the abbreviated substring
14 corresponds to a particular expanded substring, and
15 producing an expanded input string that is a version of the unexpanded input string
16 with the abbreviated substring replaced by said particular expanded substring.
- 1 2. The method of claim 1 in which one of the abbreviated substrings begins with a
2 character and represents an expanded substring that begins with the same character
3 and in which the step of determining that the abbreviated substring corresponds to a
4 particular expanded substring comprises:
5 determining the case of the beginning character in the abbreviated substring; and
6 giving the determined case to the beginning character in the expanded substring.

3. The method of claim 1 in which one of the abbreviated substrings represents expanded substrings that depend on time and in which the step of determining that the abbreviated substring corresponds to a particular expanded substring comprises: performing a computation to obtain an expanded substring based on the current time; and producing the expanded input string with the abbreviated substring replaced by the expanded substring based on the current time.

4. A server machine for expanding input strings of characters received from client machines that include character input devices, the server machine comprising: a processor; and connecting circuitry for connecting the processor to a user's client machine that includes a character input device; the processor operating to: access, in a location accessible to said server machine, one or more mappings between abbreviated substrings and expanded substrings; receive, at the server machine, an unexpanded input string of characters from a client machine that includes a character input device, the unexpanded input string including at least one abbreviated substring, each preceded and followed in the unexpanded input string by word delimiters; each abbreviated substring belonging to a set of abbreviated substrings in an applicable mapping of said one or more mappings; and automatically find one of the abbreviated substrings based on the preceding and following word delimiters; determine, based on said applicable mapping, that the abbreviated substring corresponds to a particular expanded substring, and

19 produce an expanded input string that is a version of the unexpanded input string with
20 the abbreviated substring replaced by said particular expanded substring.

5. A method of performing a server action that requires user input, the method comprising the steps of:

21 storing, at a location accessible to a server machine, one or more mappings between
22 abbreviated substrings and expanded substrings;

23 receiving from a client machine an unexpanded input string that includes an
24 abbreviated substring;

25 determining whether said abbreviated substring is constrained to be identically
26 produced;

27 if said abbreviated substring is constrained to be identically produced, then

28 performing said server action using said abbreviated substring without
29 expanding said abbreviated substring; and

30 if said abbreviated substring is not constrained to be identically produced, then

31 performing the steps of

32 inspecting a mapping, of said one or more mappings, to determine an

33 expanded substring that corresponds to said unexpanded substring; and

34 performing said server action using said expanded substring.

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36 6. The method of Claim 5 wherein:

37 the client machine is operated by a particular user; and

38 the method further includes the step of determining which mapping of said one or
39 more mappings to inspect based on identity of said particular user.

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- 41 7. The method of Claim 6 wherein the step of determining which mapping to inspect
42 includes the steps of:
43 identifying which group of a plurality of groups includes said particular user, and
44 identifying a mapping associated with the group that includes said particular user.
8. The method of Claim 5 further comprising the step of determining which mapping of
said one or more mappings to inspect based on which type of server action is
requested by said client machine.
9. The method of Claim 5 wherein:
45 the method further comprises the step of determining a current time; and
46 determining which substring of a plurality of substrings corresponds to said
47 unexpanded substring based on the current time.
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- 49 10. The method of Claim 9 wherein the step of determining which substring corresponds
50 to said unexpanded substring includes:
51 expanding said unexpanded substring to a first expanded substring without regard to
52 current time; and
53 expanding said first expanded substring to a second expanded substring based on the
54 current time.
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- 56 11. The method of Claim 5 wherein the step of performing said server action using said
57 expanded substring is performed without sending said expanded substring to said
58 client machine.
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12. A computer-readable medium carrying instructions for performing a server action that requires user input, the instructions including instructions for performing the steps of:
- 60 storing, at a location accessible to a server machine, one or more mappings between
- 61 abbreviated substrings and expanded substrings;
- 62 receiving from a client machine an unexpanded input string that includes an
- 63 abbreviated substring;
- 64 determining whether said abbreviated substring is constrained to be identically
- 65 produced;
- 66 if said abbreviated substring is constrained to be identically produced, then
- 67 performing said server action using said abbreviated substring without
- 68 expanding said abbreviated substring; and
- 69 if said abbreviated substring is not constrained to be identically produced, then
- 70 performing the steps of
- 71 inspecting a mapping, of said one or more mappings, to determine an
- 72 expanded substring that corresponds to said unexpanded substring; and
- 73 performing said server action using said expanded substring.
- 74
- 75 13. The computer-readable medium of Claim 12 wherein:
- 76 the client machine is operated by a particular user; and
- 77 the computer-readable medium further includes the step of determining which
- 78 mapping of said one or more mappings to inspect based on identity of said
- 79 particular user.
- 80
- 81 14. The computer-readable medium of Claim 13 wherein the step of determining which
- 82 mapping to inspect includes the steps of:
- 83 identifying which group of a plurality of groups includes said particular user, and

84 identifying a mapping associated with the group that includes said particular user.

15. The computer-readable medium of Claim 12 further comprising the step of
determining which mapping of said one or more mappings to inspect based on which
type of server action is requested by said client machine.

16. The computer-readable medium of Claim 12 wherein:

85 the computer-readable medium further comprises the step of determining a current

86 time; and

87 determining which substring of a plurality of substrings corresponds to said

88 unexpanded substring based on the current time.

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90 17. The computer-readable medium of Claim 16 wherein the step of determining which
91 substring corresponds to said unexpanded substring includes:

92 expanding said unexpanded substring to a first expanded substring without regard to

93 current time; and

94 expanding said first expanded substring to a second expanded substring based on the

95 current time.

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18. The computer-readable medium of Claim 12 wherein the step of performing said
server action using said expanded substring is performed without sending said
expanded substring to said client machine.